ER Site No. 81: New Aerial Cable Site/Burial Site /Dump/Test Area

ADS: 1333
Operable Unit: Canyons Test Area

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Site History

ER Site 81, identified as the New Aerial Cable Site/Burial Dump/Test Area in the HSWA Module, is located on land withdrawn from the USFS and permitted to the DOE. A revised draft EA for this site was submitted to the DOE for review in May 1995. The site is located on canyon-floor alluvium in the middle to lower reaches of Sol se Mete Canyon and is surrounded by steep, sloping canyon walls on the east and west. Immediate topographic relief around the site is over 1000 ft. The Sol se Mete Canyon drains to the north into Lurance Canyon, which in turn drains to the west into Arroyo del Coyote. Coyote Springs Road follows the drainage of the Lurance Canyon and is the main access to the service road in Sol se Mete Canyon.

Construction of the Sol se Mete Aerial Cable Site began in 1970 in response to the need to upgrade the aerial cable facilities that existed at the Old Aerial Cable Site (ER Site 82). The Sol se Mete aerial cable facilities provide impact testing on weapons and other test units that may be subject to detonation. The initial construction activity at ER Site 81 was at the southern cable area and included the placement of the aerial cable anchors on the ridgecrests east and west of Sol se Mete Canyon.

A 1971 historical aerial photograph shows that the Sol se Mete Aerial Cable Site was active and had three main features: cables suspended between the east and west ridgetops, a concrete impact pad, and a 600-ft-long sled track. The southern aerial cable is 4800 ft long and can raise items up

to 600 ft. A smooth-track cable was added to the southern cable area in 1977 to allow additional trolley simulated aerial flight tests by all three branches of the military service.

A 1983 historical aerial photograph shows several additional features, including storage sheds, concrete pads, winches, pulleys, cables, and a fire scar caused by a runaway rocket motor to the east of the sled track. The sheds, trailers, and camera bunkers in the southern cable area were used for equipment storage and were never used for tests. There were no visible signs of spills or contamination in or near these support structures. Several of the concrete blocks around the impact pad were used as anchors for a net that was suspended at the impact pad. The net was later moved to ER Site 63. Three cables and their associated anchors in the southern cable area of ER Site 81 are used in test operations: a main cable (constructed in 1970), the trolley cable (constructed in 1977), and a camera cable. Support structures associated with the aerial cables include winches, guide pulleys, and utility trucks (with winches). No hazardous materials were ever stored or noted at the winch sites associated with ER Site 81. There is no evidence that hazardous constituents have ever been used or released at these support structures. No fuel storage areas or fuel spills have been identified.

In 1984 or 1985, the northern cable was installed and dedicated to antitank drop tests. Two of the antitank programs conducted at ER Site 81 were the search-and-destroy armor (SADARM) program and the sensor-fused weapons (SFW) program. The DOE, the DoD, and their contractors have conducted numerous tests at this area on an annual basis since 1970. Bunker 9834 is located in the northern cable area. It served as a control bunker containing instrumentation and was never used to house tests or to test materials. In 1987, six cables spanning the Sol se Mete Canyon were used to suspend targets and for impact tests, trolley tests, anti-armor tests, and other miscellaneous types of testing.

ER Site 81 has been divided into six sub-units based on testing activities and geographic location.

ER Site 81A - Catcher Box/Sled Track (Active)

The Catcher Box/Sled Track is located in the eastern arm of the southern cable area at ER Site 81. The site comprises approximately 2.4 acres. The original sled track and catcher box at the Sol se Mete Aerial Cable Site were constructed in 1970 in support of impact testing conducted in the southern cable area.

Recycled uncontaminated rail from the north end of the sled track in Area III was used to construct the original sled track at ER Site 81. It was removed in late 1992 and replaced with a new sled track of similar specifications. Construction associated with replacing the old sled track was completed in early 1993. The approximately 600-ft-long new sled track is supported by concrete piers resting on bedrock on about 25-ft centers that are set 3- to 20-ft deep. The sled track runs approximately east-west up a hillside and is estimated to be on a 20-degree slope that rises to the east. Brush has been cleared within about 20- to 30-ft on either side of the sled track.

The hardened concrete catcher box is approximately 12 ft high by 12 ft deep by 16 ft wide and is located about 50 ft off the east end of the sled track. An earthen berm with concrete thrust shields is located approximately 50 ft west of the base of the sled track and protects the impact pad area

from rocket exhaust. A large green Y-shaped tower on the south side of the sled track is associated with other towers that hold the Kevlar aerial cable off the ground when the cable is lowered.

Specialized armament testing programs were also conducted at ER Site 81 for the U.S. Navy target and scoring system. One fixed and two portable gun locations used in these programs are located within ER Site 81A. A 20-mm anti-aircraft gun was mounted on a concrete block next to the sled track and two portable guns were located 20 ft north of the sled and 200 ft northeast of the catcher box.

ER Site 81B - Impact Pad (Active)

The Impact Pad is sited on approximately 4.1 acres near the center of the southern cable area at ER Site 81, approximately 200 ft west of the base of the sled track (ER Site 81A). It consists of steel-reinforced concrete that is faced with armor plating. The pad was designed to provide an "unyielding surface" for testing the impact of weapons and transportation containers that are designed to house nuclear materials. In addition to impact testing, the impact pad area has been used for miscellaneous tests, including HE and metal volatilization tests and fuel-air tests. ER Site 81B is considered a dispersion area for these tests.

Specialized armament-testing programs were also conducted at ER Site 81 for the U.S. Navy target and scoring system. Two portable gun locations used on this program were located within ER Site 81B. Based on the aluminum projectiles and plastic cylinders found in the canyon north of ER Site 81E, these guns fired inert projectiles at targets suspended over the canyon. The aluminum projectiles and plastic cylinders appeared to represent the most recent armament testing program conducted by the U.S. Navy at ER Site 81.

ER Site 81C - Former Burial Location (Inactive)

The Former Burial Location is to the south of the sled track (ER Site 81A) in the southern cable area of ER Site 81. It covered approximately 0.5 acre in a depression on the south side of the sled track. Debris from testing operations was deposited and partially buried in and around a very steep arroyo at this site from the time testing began in 1970. The debris resulting from testing activities that occurred at ER Site 81 included spent rocket motor casings, used cables, scrap metal, and scrap wood. A Voluntary Corrective Measure conducted in 1998 removed the material. Materials are no longer disposed of at ER Site 81C.

ER Site 81D - Northern Cable Area (Active)

The Northern Cable Area is located in the north portion of ER Site 81. The site is comprised of 4.3 acres. The area was constructed in 1984 and 1985 to provide a dedicated area for anti-armor tests. It consists of a lightweight steel cable and anchors, a camera cable and anchor system, and a winch site independent of the winch sites used in the southern cable area. This area is used for engineering simulations in which test articles are dropped from the cable onto a target array positioned on the ground.

ER Site 81E - Gun Impact Area (Inactive)

ER Site 81E is located on approximately 0.1 acre adjacent to the southern cable area along the

western ridge of ER Site 81. It was the impact area of projectiles fired from portable guns in ER Sites 81A and 81B at targets suspended from aerial cables.

ER Site 81F - Scrap Yard (Active)

ER Site 81F is located in the southernmost portion of ER Site 81. The site is comprised of 1.3 acres and has been used for storage of test equipment beginning shortly after the sled track (ER Site 81A) was constructed in 1970. It was first seen as an active site in the June 1983 historical aerial photograph. During a site visit in July 1994, it was noted that ER Site 81F contained old test fixtures, rocket sleds, cables, and dummy bombs and missiles that may be needed for future tests, as well as pulleys, winches, empty tanks, one empty 55-gal. drum, electrical equipment, metal, concrete blocks, wood scrap, spent rocket motors, and a large box filled with sand and sawdust used to soft-catch a test unit that did not contain any hazardous or radioactive constituents. These materials are representative of items typically stored at ER Site 81F.

Spent rocket motor casings are occasionally stacked east of the service road, approximately 600 ft south of the impact pad (ER Site 81B). The cylindrical steel motor casings are 8 to 12 in. in diameter and 6 to 8 ft in length and are closed on one end. Analytical results of samples taken from the residue inside rocket motor casings at the scrap yard indicate that no propellant remains after rocket firing. Therefore, the spent rocket casings are considered empty containers and are exempt from federal and NMED hazardous waste regulations.

Constituents of Concern

Metals
Rocket propellant
HE
SVOCs
VOCs

Current Hazards

There are no current hazards at this site related to contamination of the surface or subsurface soils. There are many structures and stored test materials that remain at the site that are potential hazards.

Current Status of Work

An RFI Work Plan was submitted to EPA for approval in January 1996. A Request for Supplemental Information (RSI) was received from NMED in August 1997, and a response was subsequently submitted to NMED. An NOD was received from the NMED in April 1998 for the work plan and a response was subsequently submitted. Based on the negative results of the surface radiation surveys conducted in 1994, the site was approved for removal from the RMMA status list in April 1998.

Baseline soil sampling was conducted at sites 81A,B, D, E, &F in 1998. The sampling plan incorporated comments received fron NMED.

Site 81A, 81B, 81D, 81E and 81F were proposed for a risk-based NFA in September 2000. A No Further Action (NFA) Proposal was submitted to NMED for Sites 81A,B,D,E and F in September 2000.

A No Further Action (NFA) Proposal was submitted to NMED for Site 81C in May 1999. Site 81C was found acceptable for NFA petition by NMED in September, 1999. The NFA was approved by NMED in October 2000 after completing the public review and permit modification process.

This site was accepted for NFA by NMED on December 5, 2000. On April 25, 2001 NMED indicated that sites 81B, 81D and 81E were appropriate for NFA petition. On April 26, 2001 NMED indicated that site 81A and 81F were appropriate for NFA petition.

The NFAs for Sites 81A, B, C, D, E, and F were approved by NMED on November 19, 2001, after completing the public review and permit modification process.

Future Work Planned

None

Waste Volume Estimated/Generated

Approximately 750 rocket motor casings, 5 tons of steel cable, and 1 ton of metal debris was generated during the VCM at ER site 81C. Approximately 700 cubic yards of excavated soils were sampled and confirmed clean and regraded on the site by Aerial Cable Site personnel.

Information for ER Site 81 was last updated Jan 22, 2003.